Map it?

Mapping Agroecology: who, how, and what for?

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Introduction

Many organizations working to promote agroecology around the world are engaging in different kinds of mapping initiatives. People are mapping farms, organizations, markets, local varieties (crops and livestock), soil fertility and water management practices, policies and more. In some cases, there are multiple, overlapping maps of similar initiatives in the same location.

The urge to map seems to respond to a need to document, better understand and make visible the rapid emergence and evolution of agroecology, food sovereignty, and food justice initiatives and movements. Proponents of agroecology are looking both to strengthen what already exists as well as facilitate further scaling up and out of agroecology through understanding and communicating what is going on and where it is happening.

This document is the outcome of a small study conducted to explore how mapping is being used in relation to agroecology. We set out to ask:
1) Who is mapping, what are they mapping and how are they doing it?
2) How does mapping support or undermine social movements convening around agroecology and healthy food systems?

What is Mapping?

Mapping is a tool that helps us to understand both what is going on and where it is happening. For this work, we understand mapping to go beyond associating an experience or initiative with geographical coordinates on a cartographic map to convey spatial information. We also consider mapping to include a searchable compilation of information about initiatives at various levels (local, regional, national), policies, studies, or actors in different places. However, repositories that are not searchable are not considered maps because they do not fulfill the goal of understanding 'what is going on and where is it happening'. A map can be a study if the main goal is to document what is going on where.

Approach

This exploratory research was conducted in three main phases. First, we carried out five semi-structured interviews with people who have been involved in a selection of mapping initiatives. The interviews were conducted to learn more about the mapping activities of each group, as well as to point us to other organizations also engaged in mapping. Next, we conducted an internet search to identify other organizations documenting agroecological processes around the world. We carried out our search in English and Spanish. In total we reviewed 40 mapping initiatives and documented 18 of these; a list can be found in the Annex below. We selected 16 out of the 40 initiatives because we chose illustrative examples of each type of mapping initiative that we identified. Finally, we compiled this research summary to draw out and discuss our

preliminary findings about mapping and how it contributes to social change. We are now in the process of reflecting on these ideas with those people who are involved in mapping agroecology, in an iterative conversation. Based on this conversation, we intend to further develop this document into a publication for general use and possibly an academic article.

Our preliminary analysis

All of the initiatives we reviewed had a common aim of collecting information about agroecology and to share it with others. However, it appears that there are important differences in four primary areas:

a) The objectives of the mapping process.
b) The approaches used for the mapping process.
c) Who is doing the mapping.
d) The format of the final outcome.

The actors, their main objectives, the approach to mapping and the format of the outcome all shape the type of information that is mapped and the way that it can be used. Furthermore, certain trade-offs will be experienced depending on how the mapping process is designed (Figure 1). These four areas and the tradeoffs are each further described below.
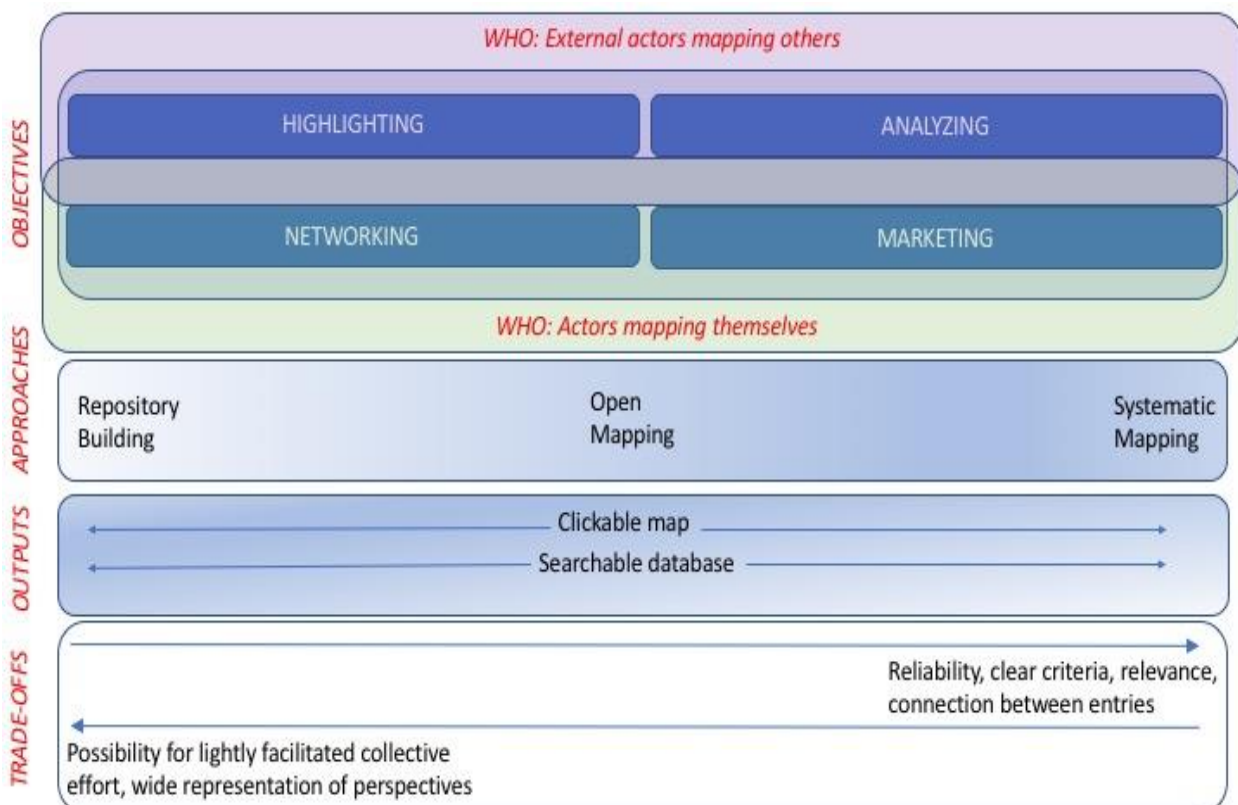
Figure 1. Framework for understanding objectives, approaches and tradeoffs in mapping

Objectives driving mapping

We have identified four common objectives driving mapping work. These objectives are not mutually exclusive categories, but often one objective is the most dominant.

- **<u>Highlighting</u>:** documentation and presentation of information about agroecology which intends to make the work of the collective movement more visible to the public and available in a searchable database and/or on a map. The FAO knowledge hub is one example of this.

- **<u>Analyzing</u>:** mapping with standard variables and characteristics in order to analyze the dynamics of agroecology in a particular geography. This is used to better understand different aspects of agroecology, track changes and to reach a deeper understanding of what is happening with agroecology. The Beacons of Hope project is one example of this.

- **<u>Networking</u>:** mapping in order to help link different actors involved in agroecology in a particular geography. These networking initiatives are being carried out at different levels, from local to global, depending on the scope of the networking project. See below for an example of an initiative from each scale: local, national, regional, and global.

- **<u>Marketing</u>:** platforms in which NGOS working towards amplifying agroecology showcase what they are doing or in which companies marketing products or services aimed at supporting agroecology or based on agroecology advertise what they have to offer. The characteristic that stands out in this category is that the company or organization is limiting the information on their maps to their own products or services in an attempt to increase self-promotion rather than collective work. For example, the Friends of the Earth map indicates where their member organizations are actively supporting agroecology.

Approaches to mapping

We have distinguished between three main approaches to mapping based on how information is collected and presented. We differentiated between these approaches primarily depending on the amount of centralized control of what is included on the 'map' - that is, to what extent there is strict criteria for what belongs on the map. The approaches are associated with the objectives driving the mapping. There are important implications of the approach chosen for the usability of the information and there are important tradeoffs associated with each of these approaches.

We classified initiatives into three categories: 'repository building', 'open mapping' and 'systematic mapping' of related entries.

'Repository building' is the act of documenting events, cases, reports etc., related to agroecology, but the entries may be unrelated to each other and no further criteria are used to compile it. The entries included in these initiatives are likely to be more open, broad, and the result of a collective effort on the part of different actors. This kind of mapping has the potential to reflect different ways of thinking about agroecology and to collect a broader range of experiences, but has the disadvantage of less reliability in terms of the quality of the information presented. These initiatives are less likely to depend on external funding and more on the willingness of the users. How well it is

maintained depends more on the utility of the process and final product for the users or contributors. One example of this type of mapping is the 'ag-transition', a repository built by a number of NGOs in an ad-hoc manner.

'Open Mapping' is where an organization or platform has made an inventory of related entries with clear criteria. This means that criteria has been agreed upon, there is some mechanism for checking that these criteria apply to the case, but the entries are still relatively ad/hoc (added to the platform as they are found, rather than actively searching for entries) and can mix different types of entries (informal documents, case studies, interviews, academic papers, websites, etc). The advantage of this kind of mapping is that a broader set of experiences may be represented, but the relevance or reliability of the information is not guaranteed. These 'open mapping' initiatives are often controlled by a closed group of people - this allows for the application of agreed upon criteria, but has the same disadvantage as in the case of systematic mapping— certain types of agroecological experiences could be excluded. The project is likely to be dependent on external funding to maintain it. One example of this is the FAO knowledge hub.

'Systematic mapping' involves a systematic search for entries based on clear criteria. This means that an organized attempt has been made to cover a topic or a geographical region and record all cases (whatever they may be, for example, farms, varieties of seeds or policies) that fit the criteria. This kind of mapping tends to be done by one person or a small group of people and is likely to depend on external funding. It tends not to mix the type of entry included (meaning that all entries are either descriptions of farms, or policies, or publications, but does not mix publications, with farms with policies). The advantage of this kind of mapping is the relevance of the information collected is, in theory, more reliable (in that it matches a set of clear criteria defined by the group). The disadvantage of this kind of mapping is that there is tight control over what is and what is not included, excluding entries that fall out of view of the person controlling the mapping, for reasons of, for example, language or if initiatives fail to meet predetermined criteria, but may still be relevant. Another possible disadvantage is the high cost of verification and the challenge of keeping such a map up to date.

Who is mapping

Who is doing the mapping influences how it is done and what gets on the map. The objective of the mapping and the approach used is decided by the groups doing the mapping, but even if the objective and the approach is the same, differences can emerge depending on who is mapping. It is important to mention here that many agroecological experiences may remain invisible because they are not seen by the people doing the mapping. Intersectoral discrimination is likely in which initiatives carried out by marginalized groups, including indigenous people, women, groups of lower social status are less represented than those of privileged actors. The accentuation of the visibility of the already advantaged groups and actors could be one negative secondary effect of mapping. On the other hand, conscious mapping of marginalized groups could produce the opposite effect, bringing visibility to otherwise invisible initiatives. This visibility may not always be desired and could bring risks to groups working under the radar in the solidarity economy (e.g. groups avoiding costly regulations may be 'found' by enforcement agents/inspectors if they are 'mapped'). While we find this of utmost importance to mention, documenting this dynamic in more depth was beyond the scope of this phase of our work.

What was evident from our research was that the actors doing the mapping collect information selectively, according to their relationship to what they are mapping and their relationship to the users of the mapping outcome. We identified two main groups:

1) **Actors mapping themselves:** Subjects of mapping initiative map themselves, and also are the end-users of the outcome of the mapping. For example, 'Madrid Agroecologico' is a mapping initiative created through the collective effort of 21 associations. They have mapped the activities of their own members and they are also the end-users of the outcome of the mapping initiative. As mappers they have, and are a part of, extensive networks.

2) **External actors mapping others:** External actors have mapped initiatives in which they are not involved, nor are they the end-users. For example, the FAO knowledge hub and the Seed Map are two mapping initiatives created and maintained by organizations external to the subjects of the mapping.

Outputs of mapping

Naturally, different approaches to mapping lead to different types of outputs or final products. These final products include anything from clickable maps with educational material or brief descriptions of cases, to lists of initiatives associated with a particular place or a group of people, to uncurrated repositories of articles or documents, to databases of best practices. All of the approaches mentioned above can lead to similar outputs-- for example, systematic mapping does not necessarily lead to a clickable map and a repository does not have to be a list of entries.

Trade-offs

The way that information is being collected and disseminated influences the reliability of the information, and what it can be used for. There are some important tradeoffs at play with regards to the mapping approaches.

➢ More control over the entries, as in the case of systematic mapping, leads to more reliable information, but potentially representing a narrower range of perspectives.

➢ Maps used and more owned by users are better maintained over time, rather than those depending on external funding.

➢ Mapping more specific types of entries (such as only breeders of traditional, local crop varieties) are likely to me more accurate and useful for some practitioners and less informative for a general public.

ANNEX 1: The mapping initiatives

1. *Highlighting: Mapping to document and share information about agroecology*

These initiatives include projects that have attempted to collect information about what we know about agroecology in general. This includes where it is happening, what is happening and who is doing it. The geographical spread ranges from global to regional.

1.1. FAO's Agroecology knowledge hub

Description of the initiative:
The knowledge hub is an online database that can be freely accessed and used to search for information about agroecology. This database aims at knowledge transfer therefore, it focuses on being a repository for articles and books, but also includes 88 case studies.

This initiative has organized articles, videos, case studies, books and other relevant material in one online location. According to the Website, ¨the objective of this database is to support policy-makers, farmers, researchers and other relevant stakeholders through knowledge exchange and knowledge transfer.¨

Of the 760 total entries, 196 of these are journal articles, 110 books, 84 are articles, 88 case studies, 75 videos, 43 reports, 25 reports on events, 23 conference proceedings, 22 Websites, 21 learning entries, 20 conference reports, 19 definitions, 13 policy brief/papers, 12 manuals, 11 working papers, 10 fact sheets, 6 guidelines, 1 project and 1 audio. The database is organized into ten topics which are: balance, circular economy, co-creation of knowledge, culture, and food traditions, diversity, efficiency, human and social values, land and natural resources, recycling, and synergies. These topics are not defined on the webpage. There is an option to check a box to transversally elicit entries that have gender-related content.

Mapping approaches used
FAO adds entries to their database as soon as they know about them, either through direct contact or through their partners. They add entries in a case-by-case process, in which they use the 10 elements as main criteria for determining whether or not an entry should be added. These 10 criteria are: Diversity, Co-creation and sharing of knowledge, Synergies, Efficiency, Recycling, Resilience, Human and social values, Culture and food traditions, Responsible governance, Circular and solidarity economy. Two people from the FAO team check the content and relevance of each database entry.

Website: http://www.fao.org/agroecology/en/
Contact person: Carolina Starr
Geographic spread: Global
Type of mapping initiative: Mapping-- the database has been developed on the basis of defined criteria.

1.2. Seed Map
Description of the initiative:
In 2013, USC Canada and ETC group launched the online, clickable seedmap.org that features over 400 case studies. It aims help people understand where agricultural biodiversity originated, is threatened, and where people are working to safeguard it. The

cases are organized first into thematic units: food diversity, threats, and solutions, and further into topics and subtopics. Under 'food diversity' the topics covered (with subtopics in parenthesis) are: centers of diversity (crops, livestock), agricultural biodiversity (aquatic, crop, livestock, micro, forest, hidden) and cultural diversity (knowledge, food culture and traditions). Under 'threats' the topics covered are: climate chaos (climate food impacts, technofixes), industrial agriculture (unsustainable practices, engineered seeds, corporate control of food, biopiracy), governance and policy (trade, aid and climate policies), and consumption. Under 'solutions', the topics covered are: conservation (on farm, seed banks), food sovereignty (people and farmer-led movements), agroecology (community-based resource management, ecological agriculture), policy and governance (international, civil society) and community-based action. Each case study contains a brief summary complete with links to additional resources as well as photographs and relevant videos.

Mapping approaches used
This map was created as a collaboration between UCS Canada and the ETC group. It is no longer being updated because of lack of funding. However, when it was ongoing, a consultant was hired to systematically collect information for this map. There is also an option on the Website for the public to share a case study.

Website: http://seedmap.org
Contact person: Faris Ahmed
Geographic spread: Global
Type of mapping initiative: Systematic mapping-- data collection was systematically searched for based on clear criteria that are reflected in the topics covered.

1.3. Agricultural Transition
Description of the initiative:
This is a webpage is a repository of sustainable agriculture initiatives, but it also claims to be a best agroecology practices database. The initiatives are organized by subject (followed by the number of entries in parenthesis) including: Agroecology (205), small-scale farmers (52), food security (48), Community participation (47), Farmers (45), resilience (44), sustainable farming (39), Organic (27), Research (26), Water (22), climate change (19), Training (16), Animals (14), Women (12), Indigenous communities (11), Analog Forestry (7) Pastoralism (7), forestry (2), Rice (1).

The initiatives are also organized by country, type, contributor, language, scope and categories (a mix of the previous categories). There are a total of 309 case studies and 107 extended reports. The vast majority of the entries are in English. The database has not been updated thoroughly in the last few years.

Mapping approaches used
Ag-Transition webpage started 10 years ago. The idea was to have a common webpage focusing on sustainable ag, a platform for different partner organizations (mostly NGOs, but also LVC and IFOAM) to post case studies and reports in addition to on their own webpage. There is no strict criteria other than that it should be about sustainable agriculture.

Website: https://ag-transition.org
Contact person: Aksel Nærstad International co-coordinator of More and Better Network (www.moreandbetter.org)
Geographic spread: Global
Type of mapping initiative: Repository—the inventory was constructed without clear criteria.

1.4. Agroecology Learning Alliance in Southeast Asia

Description of the initiative:
The learning alliance is a regional platform supporting agroecology. It is funded by the French Agency for Development (AFD) and coordinated by CIRAD and operates in Cambodia, Laos, Myanmar, and Vietnam. The initiative aims to: 1) Strengthen knowledge and experience sharing among agroecological initiatives and actors, 2) Increase visibility and credibility of agroecological movement towards policy makers and consumers. 3) Scale up the development and adoption of agroecological practice among farmers.

This Website features an interactive map of grassroots level agroecology initiatives. There are 6 categories in 5 locations and has a total of 53 resources. The categories include Organic Agriculture, Integrated Pest Management/Integrated Cropping Management, System of Rice Intensification, Integrated Farming, Conservation Agriculture and Agro-forestry.

Website: http://ali-sea.org/mapping/
Contact person: Pierre Ferrand
Geographic spread: Southeast Asia
Type of mapping initiative: Mapping—criteria is defined based on the 6 categories of initiatives on the ground.

1.5. AFSA and OAKLAND INSTITUTE 50 case studies

Description of the initiative:
This initiative is based on the idea that the transmission of knowledge, adaptation to local contexts and appropriation by farmers and government technicians is key for agroecology. Therefore the case studies try to, according to the Website, ¨demonstrate how the expansion of agroecological practices will generate a rapid, fair and inclusive development, that can be sustained for future generations.¨

Each case study is described in document outlining the main challenges and how farmers addressed these challenges. There is no evidence that these case studies have been followed up on since publication.

Mapping approaches used
The case studies were chosen from among a wider set of cases that were gathered through a call for cases sent out through their networks, and from an internet search. A panel of experts set the criteria for selection and also selected the cases.

Website: http://afsafrica.org/case-studies/
https://www.oaklandinstitute.org/agroecology-case-studies
Contact person: Michael Farrelly
Geographic spread: Africa

Type of mapping initiative: Mapping—the collection of cases were gathered on the basis of defined criteria.

1.6. FAO's AgroecologyLex

<u>Description of the initiative:</u>

This is a database of policies relevant for agroecology. AgroecologyLex is a specialized database that contains legal frameworks, policies and programmes concerning agroecology around the world. It was created as an offshoot of FAOLEX, which is a database on policies and legislation related to agriculture and renewable natural resources.

According to the Website, this database is constantly updated. The database provides access to the complete text of the policy document, as well as a detailed abstract of the contents that outlines the purpose and specific objectives, institutional frameworks and main forms of support for transitions from conventional agriculture to agroecological approaches.

We consider this to be a 'systematic mapping' project because the FAO systematically reviews new policies and updates the database. Furthermore, the type of entries are narrowed to a specific topic and added with clear criteria.

Website: http://www.fao.org/agroecology/policies-legislations/en/
Contact person: Carolina Starr
Geographic spread: Global
Type of mapping initiative: systematic mapping—the policy landscape is systematically reviewed for new policies.

2. *Analyzing: Mapping to understand agroecological change*

These mapping initiatives are aimed at researching the current changes in the agroecology landscape. What distinguishes them from the rest is that they are being carried out with the intention of analyzing the results, whereas the others aim to merely document and share information.

2.1. Beacons of Hope

<u>Description of the initiative:</u>

The project called Beacons of Hope has been a joint endeavor between Biovision and the Global Alliance for the Future of Food. The main goal of the project was to develop a framework for understanding transitions towards more sustainable food and agricultural systems. The final report has not yet been published.

<u>Mapping approaches used</u>

After a thorough literature review, the Beacons of Hope team sent out a survey to 159 'informants' from which 45 people responded, nominating a total of 128 initiatives to be further analyzed. They developed criteria for selecting initiatives that would be called the ´Beacons of Hope´ that included 44 attributes of 8 dimensions of sustainable food systems. Then, each initiative was scored between 0 and 1 for the direct and indirect impacts of the work on each of these 8 dimensions and 44 attributes. A total of 22 initiatives were selected: 16 based on their scores and 6 based on unique approaches from which key lessons could be learned.

The Beacons of Hope project team operationalized the Multi-Level Approach (MLA) (Geels 2002 and 2011) as part of their framework. Interviews were carried out with representatives from these 22 initiatives based on this approach to situate the initative within the 3-level MLA model. The interview included questions about the vision and main intervention of the initative, and the trajectories of change through the social rules and behaviors affected, as well as overall trends, pressures and opportunities.

The goal of this work was to unearth common pathways and experiences in the transition to sustainable food systems, as well as how to accelerate the transition process and address structural barriers to transition.

Website: https://futureoffood.org/priority-initiatives/beacons-of-hope/
Contact person: Lauren Baker from the GAFF
Geographic spread: Global
Type of mapping initiative: Mapping-- the project has joined a set of related cases with clear criteria.

3. *Networking: Mapping to connect people*

These initiatives attempt to map out who the actors are in a particular region including producers, consumers, seed savers, etc. The geographic spread of these maps range from local to global. The full description of these projects is not included here because the stand as examples of mapping projects that aim to facilitate networking.

- **Local**
3.1. Madrid Agroecologico

This map was created through the collective efforts of a platform made of 21 different associations and the participation of 150 people. There are three different maps: one of producers, one of consumer groups and a third that maps 'food sovereignty'.

Website: http://madridagroecologico.org/mapas/mapeogruposconsumo/

- **National**
3.2. Community Seed Network

This map was created to link seed savers together, to link seed savers to people who want seed and to make their work visible. The project was initiated by USC Canada and Seed Savers Exchange.

Website: https://www.communityseednetwork.org/home

- **Regional**
3.3. Access to land for Community-Connected Farming in Europe

This map has been compiled by the European working group on Access to land for Community Connected Farming. They looked at regional movements and at specific farms who are conducting locally-oriented sustainable agriculture, involving the community in different ways (land ownership, farm management, marketing, on-farm social and cultural activities, etc.).

Website: https://www.accesstoland.eu/-Good-practices

3.4. Latin American map of actors

Facilitated by LEISA, this map covers all of Latin America and includes names and locations of producers and consumers.

Website: http://www.leisa-al.org/web/index.php/pautas-para-autores/87-leisa/1106-mapa-de-actores-de-la-agroecologia-en-america-latina

- **Global**

3.5. Open Food Network

Established in Australia, this platform is meant to catalyze a global movement for food system transformation. It pretends to connect people around the world working for better food systems, including creating regional and local food networks and communities by connecting producers and consumers through smart software. It has the potential to create a global map of transformational networks and movements in agroecology.

Website: https://openfoodnetwork.org

4. *MARKETING: NGO and company self-mapping*

4.1. Urgenci map of CSAs

URGENCI is in the process of mapping the different networks CSAs in the world.

Website: https://urgenci.net/csa-map/
Contact person: Jocelyn Parot
Geographic spread: Global

4.2. European Coordination Via Campesina

This initiative map ECVC organizations or allies that offer agroecology trainings.

Website: http://www.eurovia.org/eaken/interactive-map-of-initiatives/

4.3. IFOAM Participatory guarantee systems worldwide map

This map connects consumers, buyers and traders, who are looking for organically produced food, with growers and processors who certify their products through Participatory Guarantee Systems (PGS). It is meant to be a marketing tactic. Also, as mentioned on the Website, it is meant to promote healthier food systems by minimizing the distance between consumers and producers.

Mapping approaches used
Groups using PGSs register themselves on the Website.

Website: https://pgs.ifoam.bio
Contact person: Markus
Geographic spread: Global

4.4. Friends of the Earth International

This initiative maps out what each of the member groups of Friends of the Earth are doing to support agroecology.

Website: https://www.foei.org/agroecology-map